



AGGM Austrian Gas Grid Management AG

Report on market area balancing activities in Austria

Period 2020

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List of abbreviations

GTC	General Terms and Conditions
BE	Balancing energy
BG	Balance group
BGR	Balance group representative
BGC	Balance group coordinator
BIM	Balancing incentive markup
CEGH	Central European Gas Hub
CF	Carry-forward account
EEX	European Energy Exchange
TS	Transmission system
GWG	Gaswirtschaftsgesetz, the Austrian Natural Gas Act
MA	Market area
MAM	Market area manager
TSO	Transmission system operator
DA	Distribution area
DAM	Distribution area manager
VTP	Virtual trading point

1 Introduction

In the Austrian market model, AGGM Austrian Gas Grid Management AG (AGGM) operates as both as Market Area Manager and Distribution Area Manager (MAM and DAM) and is responsible for balancing activities in the Austrian gas grid.

Ex-ante and ex-post balancing are essential elements of the Austrian Balance Group (BG) structure and provide for measures to ensure balanced entry and exit quantities, keeping the transmission system within its operational limits. The balancing rules underlying the model provide the framework for all parties involved, with the balance group representatives (BGR) being responsible for maintaining a balanced energy portfolio. In the course of the ex-ante balancing, the MAM compares the allocated entry and exit capacities for each BG based on nominations and informs the BGR of any imbalances. If the BGR itself does not take any action to restore balance, the MAM calls off capacities at the gas exchange on behalf and on the account of the BGR. Ex-post balancing of the distribution area is performed by comparing the forecasted and the actual system exit and entry. In its role as DAM, AGGM procures physical balancing energy (BE), if necessary, at the gas exchange of the virtual trading point (VTP) in order to ensure system stability in the distribution area (DA). For that purpose, AGGM buys and sells balancing energy at market prices on behalf and on the account of the balance group coordinator (BGC).

In addition, as part of managing balancing energy, the MAM is responsible for collecting balancing incentive markups (BIM) when the appropriate conditions are met. Avoiding those markups serves as an incentive for BGRs to ensure consistently balanced injection and withdrawal nominations for each BG. The MAM can at the same time use those balancing incentive markups to cover the procurement of balancing energy for the market area and related costs incurred by any intraday balancing required.

The following report has been prepared in line with the objective of achieving the utmost transparency in matters relating to balancing incentive markups and any balancing measures. This balancing report examines balancing activity in the calendar year 2020 and presents comparisons with previous years to show current developments.

The second section outlines the legal background to balancing in Austria. The third section presents the physical balancing activities carried out in the distribution area and in the transmission system (TS). The fourth section describes developments in relation to balancing incentive markups. The report concludes with a summary of the key insights from this year's balancing report.

2 Legal background

2.1 Balancing

The following documents provide the legal framework for balancing of the Austrian grids by the MAM and DAM:

- Balancing Network Code
Regulation (EU) No. 312/2014 of the Commission establishing a Network Code on Gas Balancing of Transmission Networks
- The Austrian Natural Gas Act 2011 (*Gaswirtschaftsgesetz, GWG*)
Federal Act adopting new rules for the gas market, Federal Law Gazette 107/2011 as amended
- Gas Market Model Ordinance 2012 (*Gas-Marktmittel-Verordnung*)
Energie-Control Austria Executive Board Ordinance on Provisions for the Gas Market Model, Federal Law Gazette II no. 171/2012 as amended
- GTC MAM-DAM-BGR East
General terms and conditions of the Market Area Manager and Distribution Area Manager governing the legal relationships between (i) the MAM and the BGRs, on the one hand, and (ii) the DAM and the BGRs, on the other hand, in the MA East, Version 2.0 and 3.0
- GTC DAM-BGR Tyrol & Vorarlberg
General terms and conditions of the Distribution Area Manager governing the legal relationship between the DAM and the BGRs in the Tyrol and Vorarlberg market areas, version 4.0

2.2 Balancing incentive markups

The following documents provide the legal framework for calculating balancing incentive markups for unbalanced BG positions:

- Balancing Network Code
Regulation (EU) No. 312/2014 of the Commission establishing a Network Code on Gas Balancing of Transmission Networks
- Gas Market Model Ordinance 2012 (*Gas-Marktmittel-Verordnung*)
Energie-Control Austria Executive Board Ordinance on Provisions for the Gas Market Model, Federal Law Gazette II no. 171/2012 as amended
- GTC MAM-DAM-BGR East
General terms and conditions of the Market Area Manager and Distribution Area Manager governing the legal relationships between (i) the MAM and the BGRs, on the one hand, and (ii) the DAM and the BGRs, on the other hand, in the MA East, Version 2.0 and 3.0

3 Balancing activities

In its role as MAM and DAM, AGGM ensures the continuous supply of gas in Austria. Irrespective of this, it is the responsibility of the BGRs to ensure that their entries and exits are physically balanced. In case, there is insufficient line pack in the gas grid (internal balancing or control energy) AGGM takes physical balancing actions in the course of its gas flow control activities. As said above, AGGM takes balancing activities by purchasing or selling balancing energy for the distribution area and by purchasing or selling capacities in order to balance BG positions.

Chapter 3.3 concludes with the development of the neutrality accounts in the distribution areas.

3.1 Balancing in the market area

In 2020, no balancing energy was required to be called off to ensure system stability or intraday balancing of the transmission system.

However, the MAM made the following call-offs at the VTP to compensate for BGs' intraday imbalances on behalf and on the account of the BGRs. The table below shows the quantities called off (buy / sold), the count of call-offs per month (buy / sold) and the total of BGs called off per day (note that BGs can be affected multiple times per month). Where multiple trades were carried out for the purposes of one call-off, only one transaction is recorded.

Month 2020	Quantity called-off Buy (MWh)	Quantity called-off Sold (MWh)	MAM Trades Buy (count)	MAM Trades Sold (count)	Total of BGs called off per day (count)
January	4,439	8,617	14	23	37
February	2,200	6,408	9	22	27
March	3,686	4,322	6	52	57
April	5,602	7,252	16	31	44
May	1,667	3,134	11	15	26
June	6,804	11,632	22	31	50
July	708	353	9	3	12
August	5,728	8,453	17	33	47
September	75,576	14,133	24	41	60
October	2,060	6,962	13	36	44
November	2,927	12,159	19	27	45
December	6,150	9,950	20	35	47
Total	117,547	93,375	180	349	496

Table 1: Balancing actions in the MA

These figures are available on an hourly basis on the AGGM platform under "[Publication](#)".

A comparison with the previous year (Fig. 1) shows a decreasing number of trades at the VTP; however, the numbers of the years 2016-2017 indicate that this development is usual.

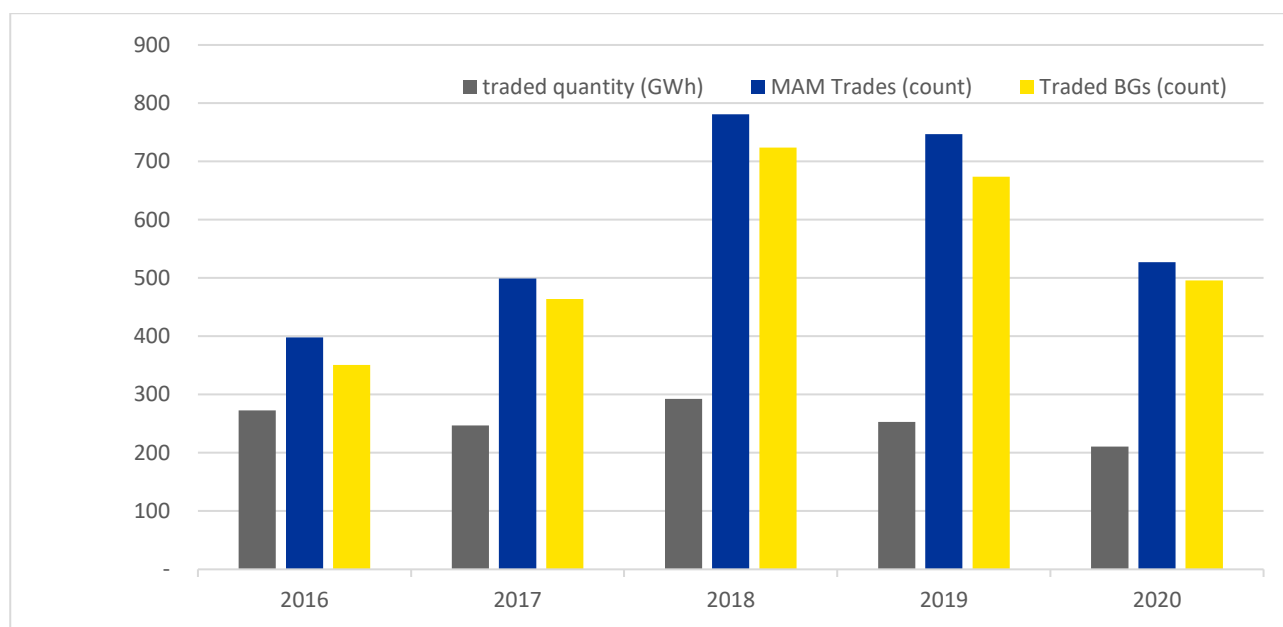


Figure 1: Comparison of balancing actions in the MA East, 2016-2020

3.2 Balancing activities in the distribution area

In order to maintain system stability, the following balancing energy capacities (in MWh) were procured at the gas exchange of the VTP for the DA in 2020: Table 2 shows BE capacities bought and sold for the Eastern distribution area and the market areas Tyrol and Vorarlberg. In addition, the number of BE calls in opposite directions (within a gas day) for the market areas Tyrol and Vorarlberg can be seen. These calls were not necessary in the DA East. Due to the persistent sufficient liquidity on the gas exchanges, calls via the Merit Order List pursuant to section 31 GMMO-VO 2012 were not required.

Month 2020	Eastern DA		Tyrol & Vorarlberg MAs		
	BE buy	BE sell	BE buy	BE sell	Number of BE calls in opposite direction
January	106,350	29,800	5,220	21,390	5
February	186,118	8,500	8,700	22,250	4
March	41,900	94,100	1,780	27,670	1
April	8,000	232,960	0	25,185	0
May	47,500	108,950	360	14,410	0
June	0	91,693	0	8,100	0
July	2,700	61,259	0	11,625	0
August	20,578	28,300	0	10,825	0
September	104,100	24,100	280	12,000	1
October	240,700	0	8,210	20,810	2
November	112,200	24,000	4,330	32,760	5
December	51,400	98,360	0	56,310	0
Total	921,546	802,022	28,880	263,335	

Table 2: Balancing actions DA

Figure 2 compares procurement of balancing energy in the years 2016-2020. In general, fluctuations are due to seasonal temperature variations and corresponding market signals. This is probably also true of the significant peak in January 2017.

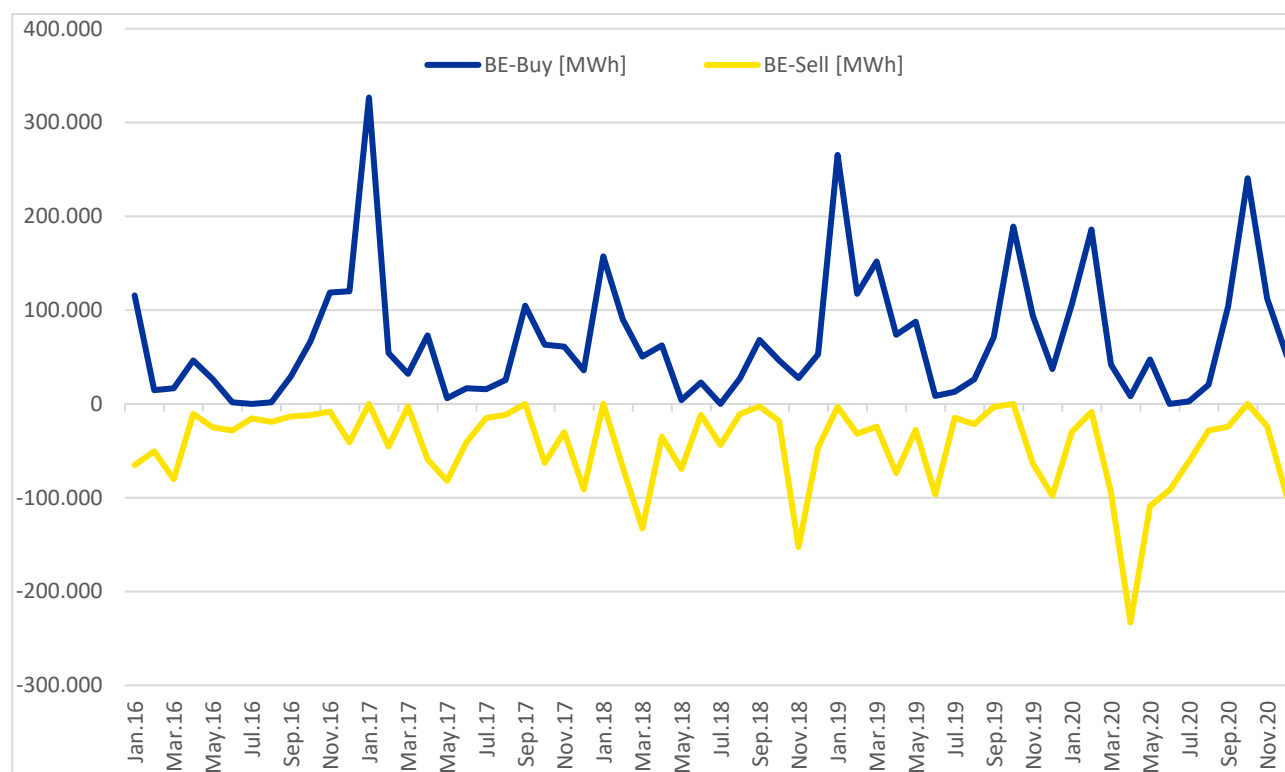


Figure 2: Comparison of balancing actions in the distribution area, 2016-2020

The following prices (in EUR/MWh) were applied for the above mentioned call-offs in 2020 in the Eastern distribution area and the market areas Tyrol and Vorarlberg (Table 3).

Month 2020	Eastern DA					Tyrol & Vorarlberg MAs				
	Maximum purch. price	Avg. purch. price	Reference price stock exchange	Avg. selling price	Minimum selling price	Maximum purch. price	Avg. purch. price	Reference price stock exchange	Avg. selling price	Minimum selling price
January	14.373	12.911	12.163	11.719	11.289	13	12.286	11.774	11.436	9.65
February	11.72	10.784	10.269	9.254	8.884	11	10.323	9.82	9.722	8.8
March	10.996	10.362	9.46	8.193	7.831	9.175	9.084	9.082	8.513	7.019
April	8.585	8.585	8.04	7.644	6.273	no call-offs	no call-offs	7.135	6.834	5.6
May	6.998	5.863	6.132	5.945	2.999	6.4	6.4	5.121	4.612	2.838
June	no call-offs	no call-offs	5.82	5.517	4.296	no call-offs	no call-offs	4.984	4.664	3.2
July	7.992	7.992	6.423	6.053	5.753	no call-offs	no call-offs	5.156	4.876	4.175
August	11.921	10.055	8.714	7.489	6.212	no call-offs	no call-offs	7.196	6.696	4.925
September	13.42	12.111	11.31	10.955	10.334	12.47	12.47	10.595	10.456	8.925
October	16.104	13.788	13.133	no call-offs	no call-offs	15.525	14.021	13.571	13.697	11.675
November	13.857	13.252	13.021	13.512	12.318	14.5	13.922	13.566	13.513	12.18
December	16.166	14.978	15.253	15.563	13.628	no call-offs	no call-offs	15.727	15.894	13.875

Table 3: Balancing energy procurement prices

Figures 3 and 4 compare purchase prices for BE in MA East and the market areas in the west for the years 2016-2020. As shown, the prices over recent years were subject to minimal fluctuation within the normal range. The only exception to this was the period of cold weather in February/March 2018 and the subsequent weeks. During this period, market prices rose abruptly and significantly, sometimes over periods of a few hours.

Physical BE prices in MA East

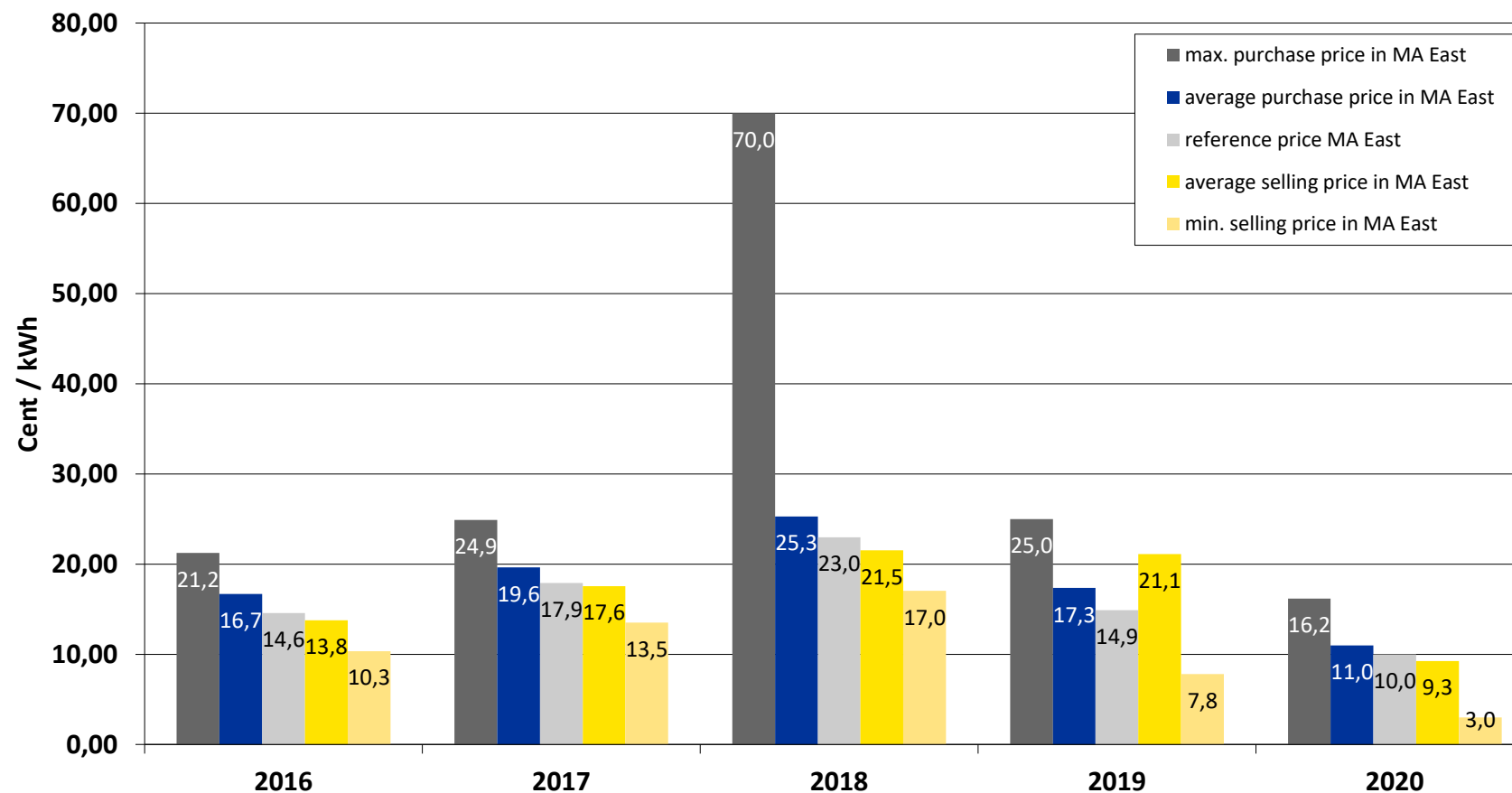


Figure 3: Comparison of BE procurement prices in the MA East, 2016-2020

Physical BE prices in MA Tyrol and Vorarlberg

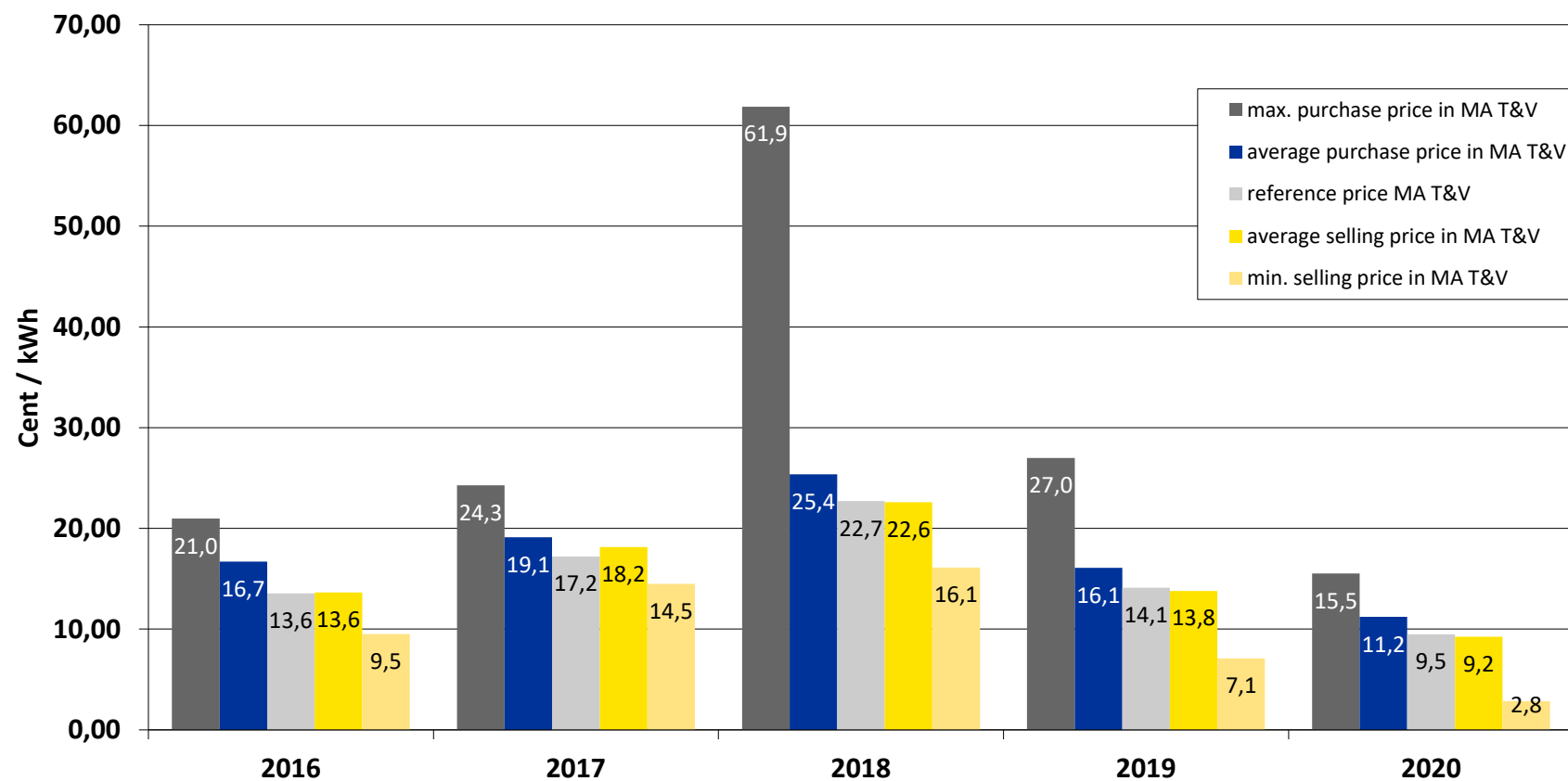


Figure 4: Comparison of BE procurement prices, Western market areas, 2016-2020

3.3 Development of neutrality accounts

The clearing and settlement agents are conducting the settlement of the imbalances on a monthly basis. Part of it is a neutrality settlement to BGRs. Revenues and expenditures resulting from the procurement of physical balancing energy and from the settlement of the imbalances are documented on a neutrality account.

The following diagrams show the development of the neutrality accounts separated for the DA East and the market areas Tyrol and Vorarlberg. The account position for the DA East was € 1,001,114 at the end of 2019 and amounted to € 3,208,136 at the end of 2020; the account position for the market areas Tyrol and Vorarlberg was € 58,582 at the end of 2019 and led to € 199,070 at the end of 2020.

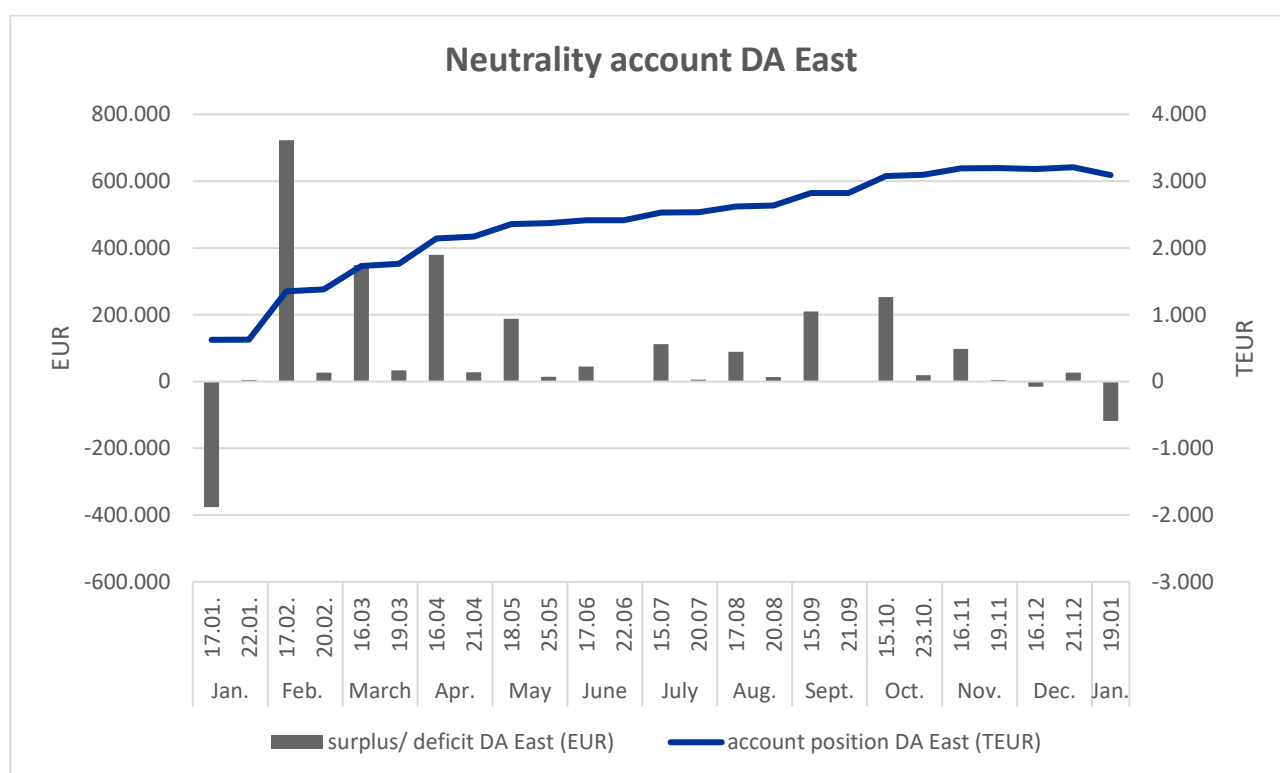


Figure 5: Development of neutrality account DA East

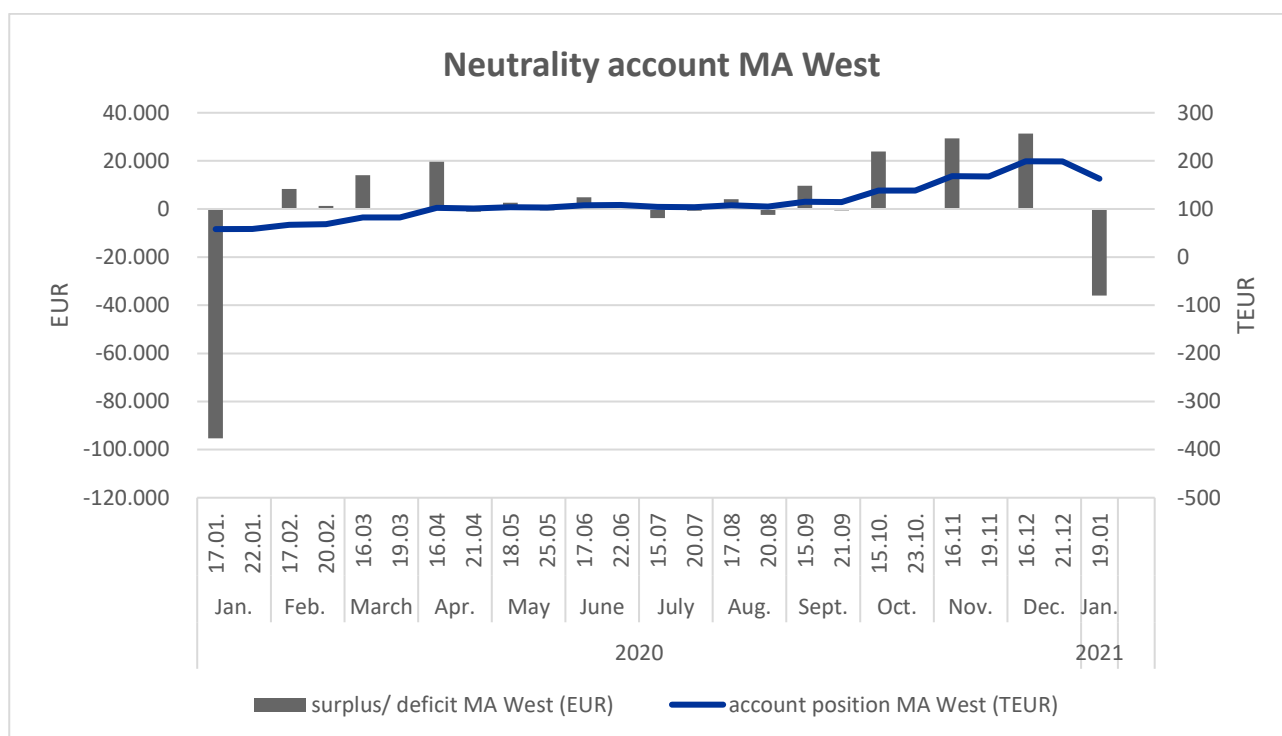


Figure 6: Development of neutrality account MA West

Details about revenues and expenditures can be found on the websites of the clearing and settlement agents [AGCS](#) (for DA East) and [A&B](#) (for the market areas Tyrol and Vorarlberg).

4 Balancing incentive markups

The method of balancing incentive markups implemented in the MA East of Austria is an incentive mechanism for BGRs to submit balanced nominations. Balancing incentive markups are payable if there are hourly imbalances and if further parameters are met.

4.1 Method for balancing incentive markups in 2020

The following chart illustrates the method of balancing incentive markups, blue boxes indicate that BG imbalances are not charged (see GTC MAM-DAM-BGR East, Article 20 as amended).

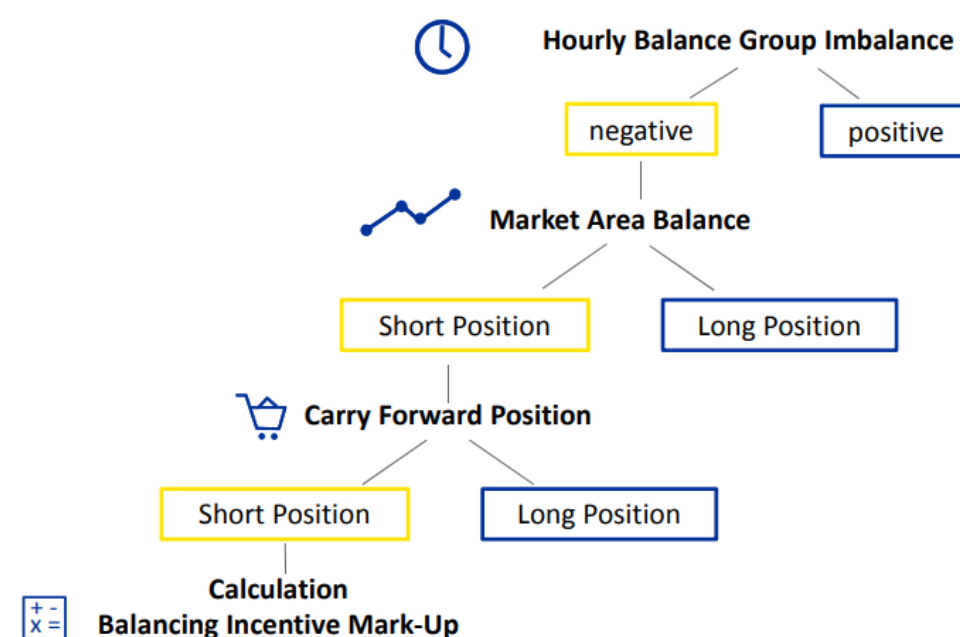


Figure 7 Balancing incentive markup method

The current balancing incentive markup method serves in particular as an incentive to reduce short positions. The amounts to be used for calculating an hourly short position are listed in the table below.

4.1.1 Calculation method 1 January to 31 July 2020

The rate scale in force since 1 June 2017 was not changed until end of July 2020.

Hourly deviations of a short position in kWh	Amount of balancing incentive markup in eurocents
Volumes between 0 and 400,000 kWh	0.09 cent/kWh
Volumes > 400,000 kWh	0.9 cent/kWh

Table 4: Rate scale until 31 July 2020

4.1.2 Calculation method 1 August 2020 until 31 December 2020

In summer 2020, due to a considerable drop in prices on the EEX CEGH gas exchange the rate scale was modified in order to react to the market situation. More details can be found in the „Report on market area balancing activities in Austria Period 2019 – Update August 2020“ on the [AGGM Website](#).

The following rate scales apply as of 1 August 2020 for the calculation of balancing incentive markups:

Hourly deviations of a short position in kWh	Amount of balancing incentive markup in eurocents as of 1 August 2020
Volumes between 0 and 400,000 kWh	0.09 cent/kWh
Volumes > 400,000 kWh	0.45 cent/kWh

Table 5: Rate scale as of 1 August 2020

4.2 Balancing incentive markups charged in 2020

In 2020, the MAM charged the volumes and amounts (in Euro, excl. VAT) listed below by month and scale:

Month 2020	BIM markup by scale - 0.09 cent/kWh		BIM by scale 0.9 cent/kWh		Total BIM	
	kWh	€	kWh	€	kWh	€
January	8 944 802	8,050.30	0	0.00	8 944 802	8,050.30
February	8 195 469	7,375.93	8 897 396	80,076.56	17 092 865	87,452.49
March	2 934 055	2,640.63	548 911	4,940.20	3 482 966	7,580.83
April	16 431 805	14,788.65	7 429 030	66,861.27	23 860 835	81,649.92
May	3 073 912	2,766.52	1 422 809	12,805.28	4 496 721	15,571.80
June	9 586 092	8,627.46	4 054 260	36,488.34	13 640 352	45,115.80
July	20 880 473	18,792.43	0	0.00	20 880 473	18,792.43
	BIM markup by scale - 0.09 cent/kWh		BIM by scale 0.45 cent/kWh		Total BIM	
	kWh	€	kWh	€	kWh	€
August	27 396 996	24,657.35	7 405 347	33,324.06	34 802 343	57,981.41
September	8 697 993	7,828.25	2 859 287	12,866.79	11 557 280	20,695.04
October	6 515 036	5,863.54	4 422 000	19,899.00	10 937 036	25,762.54
November	11 958 796	10,762.91	0	0.00	11 958 796	10,762.91
December	28 132 881	25,319.57	6 240 611	28,082.75	34 373 492	53,402.32
Total	152 748 310	137,473.54	43 279 651	295,344.25	196 027 961	432,817.79

Table 6: Charged balancing incentive markups by scale 2020

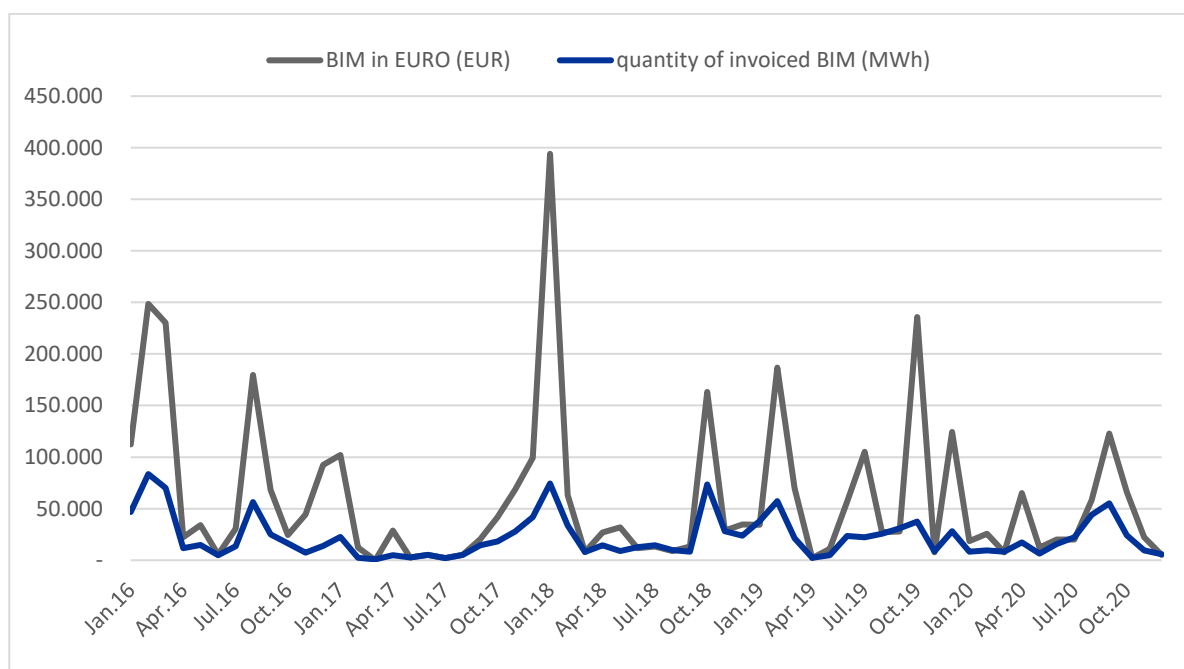


Figure 8: Comparison of balancing incentive markups, 2016-2020

In 2020, a total of **78 invoices were sent**.

In 2019, the threshold to charge monthly balancing incentive markups has been enhanced to 500 EUR. Hence, **205 invoices were not sent** due to this provision.

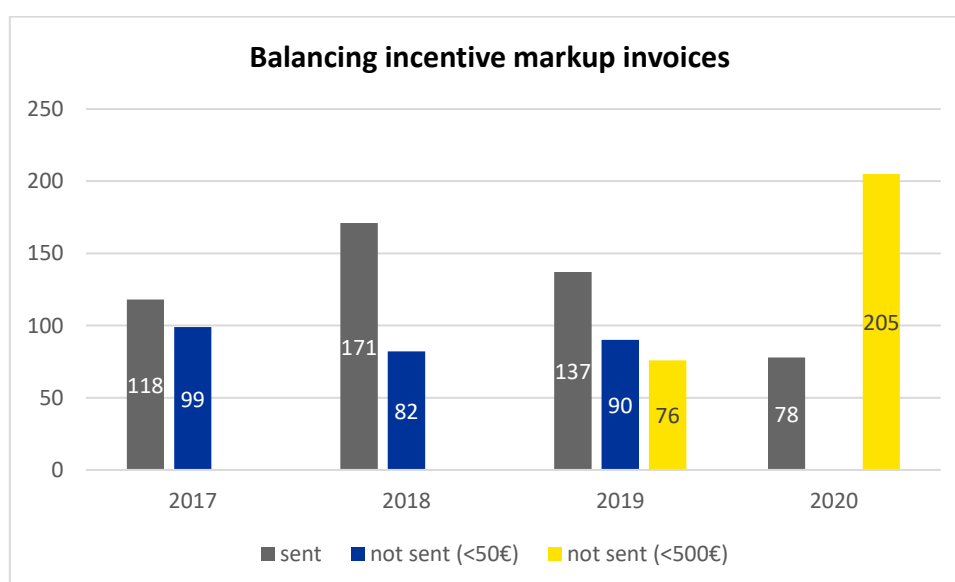


Figure 9: Balancing incentive markup invoices

4.3 Offsetting of open carry-forward accounts

Due to a suspension of services or cancellation of the BGR agreement, the carry-forward accounts of individual BGRs could not be balanced in due time. Pursuant to article 20.6 of GTC MAM-DAM-BGR East, the MAM shall offset the carry-forward accounts at the VTP.

Therefore, the MAM settled the imbalance by selling or buying the corresponding volumes at the VTP. 157.56 EUR was added to the balancing energy fund and 95.37 EUR was subtracted.

4.4 Balancing energy fund

At the end of December 2020, the amounts in the balancing energy fund are as follows:

Balancing energy fund as of 31 December 2019	1,605,286.83 €
Total of BIM (Jan. 2020 -December 2020)	432,817.79 €
Settlement of BGR carry-forward accounts (Jan. 2020 – December 2020)	62.19 €
Balancing energy fund as of 31 December 2020	2,038,166.81 €

Table 7: Balancing energy fund, 2020

5 Conclusions and summary

The 2020 balancing report shows that balancing activities carried out by AGGM and the charged amounts for balancing incentive markups remained steady in comparison with previous years.

5.1 Balancing activities

From January to December 2020, the MAM did not perform any extraordinary call-offs for unbalanced BGs.

In regards to the MA Tyrol and Vorarlberg table 2 indicates a significant selling of AE, thus pointing to a systematic surplus in the MA. A comparison with the publication of the balance group coordinator A&B shows that no systematic liability of the account occurred by the procurement of AE in 2020. The described situation in the MA Tyrol and Vorarlberg is therefore caused by the BGRs nominations.

5.2 Balancing incentive markups

The rate scale applied to the balancing incentive markups for 2020 was adapted due to the changed market situation (drop in prices on the EEX CEGH gas exchange) in summer. The rate scale of 0.9 cent/kWh was reduced to 0.45 cent/kWh. Observations of the BGR's nomination behavior indicate no change in portfolio management by the BGRs. Thus, it seems that the incentive for balanced BG nominations is still given.

Due to the implementation of a new balancing regime that is expected to come into force on 1 April 2022, AGGM proposes to compose the report on balancing activities for the calendar year 2021 including the months from January to March 2022. Accordingly, the next report will be available to the market only as of the second quarter 2022.